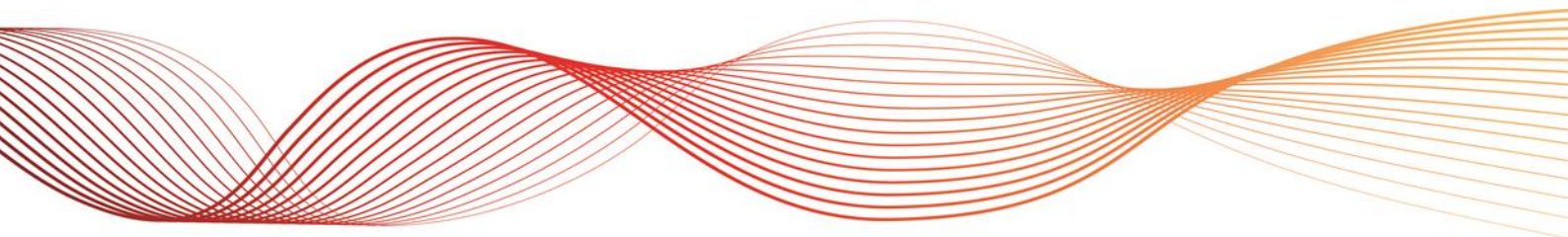




# CONGESTION INFORMATION RESOURCE GUIDELINES

DRAFT REPORT AND DETERMINATION

Published: **JULY 2018**





# NOTICE OF SECOND STAGE CONSULTATION – CONGESTION INFORMATION RESOURCE GUIDELINES

## National Electricity Rules – Rule 8.9

### Date of Notice: 27 July 2018

This notice informs all interested parties (Consulted Persons) that AEMO is commencing the second stage of its consultation on the Congestion Information Resource Guidelines (CIR Guidelines).

This consultation is being conducted under clause 3.7A(d) of the National Electricity Rules (NER), in accordance with the Rules consultation requirements detailed in rule 8.9 of the NER.

### Invitation to make Submissions

AEMO invites written submissions on this Draft Report and Determination (**Draft Report**).

Please identify any parts of your submission that you wish to remain confidential, and explain why. AEMO may still publish that information if it does not consider it to be confidential, but will consult with you before doing so.

Consulted Persons should note that material identified as confidential may be given less weight in the decision-making process than material that is published.

### Closing Date and Time

Submissions in response to this Notice of Second Stage of Rules Consultation should be sent by email to [ben.blake@aemo.com.au](mailto:ben.blake@aemo.com.au), to reach AEMO by 5.00pm (Melbourne time) on **13 Aug 2018**.

All submissions must be forwarded in electronic format (both pdf and Word). Please send any queries about this consultation to the same email address.

Submissions received after the closing date and time will not be valid, and AEMO is not obliged to consider them. Any late submissions should explain the reason for lateness and the detriment to you if AEMO does not consider your submission.

### Publication

All submissions will be published on AEMO's website, other than confidential content.

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## EXECUTIVE SUMMARY

The publication of this Draft Report and Determination (**Draft Report**) commences the second stage of the Rules consultation process conducted by AEMO to amend the Congestion Information Resource Guidelines (**CIR Guidelines**) under the National Electricity Rules (**NER**).

AEMO's original proposal was to revise the CIR Guidelines to:

- a) Require Transmission Network Service Providers (TNSPs) to provide their planned network outages via NOS and only those outages which have a material impact (i.e. those which have historical binding constraint equations).

In response to the 1<sup>st</sup> stage notice, AEMO received two submissions, from EnergyAustralia Pty Ltd and ERM Power Limited. Both responses were generally supportive of the change for the planned network outages. ERM Power Limited suggested changes to the annual Constraint Report and a CIR information pack for new participants.

AEMO's draft determination is to amend the CIR Guidelines in the form published with this Draft Report.



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# 1. STAKEHOLDER CONSULTATION PROCESS

As required by clause 3.7A(m) of the NER, AEMO is consulting on the CIR Guidelines in accordance with the Rules consultation process in rule 8.9.

AEMO's indicative timeline for this consultation is outlined below. Future dates may be adjusted depending on the number and complexity of issues raised in submissions.

Deliverable	Indicative date
Notice of first stage consultation [and Issues Paper] published	24 May 2018
First stage submissions closed	29 Jun 2018
Draft Report & Notice of second stage consultation published	27 Jul 2018
Submissions due on Draft Report	13 Aug 2018
Final Report published	24 Sep 2018

The publication of this Draft Report marks the commencement of the second stage of consultation. Note that there is a glossary of terms used in this Draft Report at **Appendix A**.



## 2. BACKGROUND

### 2.1 NER requirements

The NER specifies:

3.7A(k) AEMO must develop and publish guidelines (the congestion information resource guidelines) in relation to:

- (1) the categories of information to be contained in the congestion information resource including the source of that information;
- (2) the scope and type of information to be provided by Transmission Network Service Providers in accordance with paragraphs (n) and (o);
- (3) the processes to be implemented by AEMO to obtain the information from Transmission Network Service Providers in accordance with paragraphs (n) and (o);
- (4) the determination of the intervals for updating and publishing the congestion information resource under paragraph (e); and
- (5) the processes to be implemented by AEMO for providing Registered Participants with information under paragraph (g).

3.7A(l) AEMO must develop and publish the first congestion information resource guidelines in accordance with the Rules consultation procedures by 1 September 2010 and there must be a set of congestion information resource guidelines available and up to date at all times after that date.

3.7A(m) AEMO must amend the congestion information resource guidelines in accordance with the Rules consultation procedures.

### 2.2 Context for this consultation

The existing CIR Guidelines calls for AEMO to undertake consultation with interested parties at least every three years. The previous consultation was undertaken mid-2015 requiring a new consultation to be undertaken by mid-2018.

### 2.3 First stage consultation

AEMO issued a Notice of First Stage Consultation on 24 May 2018. The matters for consultation were:

1. The quality, relevance and frequency of information provided under the existing CIR Guidelines.
2. Suggestions of what additional information stakeholders consider should be included in the CIR Guidelines, including explanations of the value to stakeholders.
3. What current congestion-related information AEMO could stop publishing with no or little loss of value for stakeholders.
4. AEMO's proposal to revise the CIR Guidelines require Transmission Network Service Providers (TNSPs) to provide their planned network outages via NOS and only those outages which have a material impact (i.e. those which have historical binding constraint equations).

A consultation draft of the CIR guidelines was published with the first stage notice.



AEMO received two written submissions in the first stage of consultation.

Copies of all written submissions, minutes of meetings and issues raised in forums (excluding any confidential information) have been published on AEMO's website at: <http://aemo.com.au/Stakeholder-Consultation/Consultations/2018-Congestion-Information-Resource-Guidelines-Consultation>



### 3. SUMMARY OF MATERIAL ISSUES

The key material issues arising from the proposal and raised by Consulted Persons are summarised in the following table:

No.	Issue	Raised by
1.	Requirement of TNSPs to provide their planned network outages via NOS	ERM Power, Energy Australia
2.	Changes to the Annual Constraint Report	ERM Power
3.	New Connections: Information Source Pack	ERM Power

A detailed summary of issues raised by Consulted Persons in submissions, together with AEMO's responses, is contained in **Appendix B**.





## 4. DISCUSSION OF MATERIAL ISSUES

### 4.1 Requirement of TNSPs to provide their planned network outages via NOS

#### 4.1.1 Issue summary and submissions

TNSPs are required to submit their current intentions and best estimates regarding *planned network events* under clause 3.7A(p)(1) of the NER. As part of the first notice of consultation, AEMO proposed to revise the CIR Guidelines to require Transmission Network Service Providers (TNSPs) to provide their planned network outages via NOS and only those outages which have a material impact (i.e. those which have historical binding constraint equations).

Both submissions were generally supportive of this proposal. EnergyAustralia Pty Ltd and ERM Power Limited agreed that NOS was the appropriate tool for TNSPs to submit outages.

However, both submissions contained concerns about only including outages with historical binding constraint equations. EnergyAustralia Pty Ltd noted the significant new generation capacity that is forecast to be installed in the NEM, which may cause outages that have not historically had binding constraint equations to have binding equations in the future. EnergyAustralia Pty Ltd subsequently proposed for TNSPs to submit information for all outages via NOS to allow AEMO to assess and invoke constraints accordingly. ERM Power Limited expressed a similar concern and proposed that TNSPs take a forward looking assessment with regards to the potential for a network outage to have a binding constraint equation associated with it.

#### 4.1.2 AEMO's assessment

AEMO proposed this change to provide more relevant and timely information to market participants, have the information in a single source (NOS) and reduce workload for TNSPs who are manually entering and updating the data in NOS. This change was also only for the planned network outages (13 month) timeframe, the requirement for TNSPs to submit all outages in closer to outage time has not changed.

AEMO agrees with ERM that with a fast-changing power system that historical binding constraint equations is not enough. The draft CIR guidelines have been updated to include forecast binding constraints.

AEMO does not agree with Energy Australia that all outages need to be submitted for the planned network outages – a forecast of binding constraints can be performed to determine which will bind in the future and this will cover the future generation.

#### 4.1.3 AEMO's conclusion

AEMO will modify the Guidelines for the CIR to include a requirement for forecast binding constraint equations.

## 4.2 Changes to the Annual Constraint Report

### 4.2.1 Issue summary and submissions

As part of its obligations under the CIR guidelines, AEMO publishes an annual constraint report to provide market participants with information about the changing congestion patterns over the previous five years. The report details constraint equation performance and transmission congestion related issues for each calendar year.

AEMO constraint reports can be found at the following location:

<https://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Security-and-reliability/Congestion-information/Statistical-Reporting-Streams>

In their submission, ERM Power Limited recommended two changes to the annual constraint report. ERM Power Limited proposed that AEMO should separate system normal and outage constraints when it presents annual trends and top 10 lists. The second recommendation was to change the way AEMO reports on outage submission timeframes by adding the new submission timeframes “greater than 30 days and less than 90 days” as well as “greater than 90 days.”

### 4.2.2 AEMO’s assessment

AEMO has recently changed the format in which it releases the annual constraint report, the report is now published as a spreadsheet with a summary and graphs. The spreadsheet enables users of this report to filter tables to separate system normal and outage data. If the reports graphical information do not meet the specific needs of the user, all underlying data is provided so that the user can create their own trends and graphs to meet their particular needs.

ERM Power Limited also suggested for AEMO to new submission timeframes “greater than 30 days and less than 90 days” as well as “greater than 90 days” when reporting on outage information. AEMO agrees that this approach will provide greater accountability and transparency regarding TNSPs network outage submission timeframes, resulting in the efficient operation of the market.

### 4.2.3 AEMO’s conclusion

AEMO will change the next release of the NEM constraint report summary data to include ERM Power Limited’s recommendation regarding information provided on network outage submission timeframes

## 4.3 New Connections: Information Source Pack

### 4.3.1 Issue summary and submissions

When a party wishes to connect to the NEM, they may be required to register for the market with AEMO. There are a number of stages to the application process, the first two of which are stage 1 – Pre-feasibility (optional) and stage 2 – Enquiry. ERM Power Limited provided a recommendation for AEMO to provide an information source pack relating to the CIR when an initial connection enquiry is lodged. ERM Power Limited suggested that this information source pack will “assist potential new NEM participants to better understand the potential for congestion in the network associated with alternative connection locations.”

### 4.3.2 AEMO’s assessment

AEMO is currently connecting new generators and receiving connection applications at an unprecedented rate. As a result, it is important that prospective generators understand the potential risks associated with congestion to their proposed project. AEMO provides congestion information



publically via the CIR which is available on the AEMO website. AEMO also provides information about the CIR in the Network and FCAS constraints course.

While well-established market participants are most likely aware of the CIR and the information it contains, AEMO understands that new applicants may not be cognizant of the CIR or the information it provides. AEMO agrees with ERM Power Limited that there would be benefit in providing an information source pack relating to the CIR during the initial stages of an application. This will enable prospective market entrants to make more informed decisions regarding their new connection, leading to a more efficient operation of the market.

#### **4.3.3 AEMO's conclusion**

AEMO will review the information currently provided to applicants during the early stages of the registration process. AEMO will also look to provide applicants to the market with an information source pack containing material including, but not limited to the CIR.



## 5. DRAFT DETERMINATION

Having considered the matters raised in submissions, AEMO's draft determination is to amend the **CIR Guidelines** in the form of published on AEMO's website at: <https://www.aemo.com.au/Stakeholder-Consultation/Consultations/2018-Congestion-Information-Resource-Guidelines-Consultation> in accordance with clause **8.9A** of the NER.



## APPENDIX A - GLOSSARY

Term or acronym	Meaning
AEMO	Australian Energy Market Operator
CIR	Congestion Information Resource
NEM	National Electricity Market
NER	National Electricity Rules
NOS	Network Outage Scheduler
TNSP	Transmission Network Service Provider

## APPENDIX B - SUMMARY OF SUBMISSIONS AND AEMO RESPONSES

No.	Consulted person	Issue	AEMO response
1.	ERM Power Limited	“ERM Power supports the continued publication of all current information in accordance with the CIR guideline. We also believe a few minor amendments to the provision of information would offer benefits to participants and other interested parties. These are set out below.”	Support for continued publication of information currently in the CIR noted.
2.	ERM Power Limited	“We note AEMO’s proposal to require all Network Service Providers (NSPs) to provide information regarding all network outages which are planned to occur within the next 13 month period and which historically have had a material impact on network transfer in AEMO’s Network Outage Schedule (NOS) as opposed to the current separate reporting systems used by some NSPs. We agree with AEMO’s view that the NOS is the appropriate system for the notification of all network outage by NSPs to both AEMO and the Market.”	Support for the use of NOS noted in S4.1.1.
3.	ERM Power Limited	“However, given the speed with which additional generation is being connected to the network, and the impact this may have in changing the historical level of congestion associated with a network outage, we believe that NSP’ should be required to undertake a forward looking assessment with regards to the potential for a network outage to lead to network congestion and where this may occur also include these outages in the NOS.”	Noted in S4.1.1 and addressed in S4.1.2.
4.	ERM Power Limited	“ERM Power believes there would be benefit for current and future participants if improved segregation of the types of constraints were included in both the tabular and graphical reporting features of the reports, in particular in the section regarding market impact. We believe the top 10 system normal and top 10 outage constraints and annual trends should be reported separately to the other forms of constraint equations as these are the more critical indicators of the impacts of network congestion in the NEM.”	Noted in S4.2.1 and addressed in S4.2.2.
5.	ERM Power Limited	“In addition, AEMO currently reports on outage submit times prior to outage start date in the Annual Constraints Report with one of the categories being submit times greater than 30 days. We believe a potential improvement to guide improvements in network outage planning by NSPs would be to change this reporting to greater than 30 days and less than 90 days and add a new category of greater than 90 days. This would then better highlight those NSP’s that are attempting to advise network outages with submit times that provide benefits to the efficient operation of the market.”	Noted in S4.2.1 and addressed in S4.2.2.



No.	Consulted person	Issue	AEMO response
6.	ERM Power Limited	“ERM Power believes there would be benefit for AEMO or the relevant NSP to supply to any new connection enquiries an information source pack prepared by AEMO for the CIR at the time an initial connection enquiry is lodged indicating the information contained in the CIR and how the information may be accessed. This would assist potential new NEM participants to better understand the potential for congestion in the network associated with alternative connection locations.”	Noted in S4.3.1 and addressed in S4.3.2 and S4.3.3.
7.	EnergyAustralia Pty Ltd	“Under the National Electricity Rules (NER) Transmissions Network Service Providers (TNSPs) are required to submit their current intentions and best estimates regarding planned network events. EnergyAustralia supports AEMO extending the requirement to all TNSPs to use the Network Outage Scheduler (NOS) when providing AEMO with this information. This will ensure that the most up to date information on TNSPs planned outages is available to participants through the NOS. Information on planned outages is critical to market participants allowing them to make informed decisions when committing plant (in the short term) and planning maintenance (in the short and longer term).”	Support for the use of NOS noted in S4.1.1.
8.	EnergyAustralia Pty Ltd	“We are concerned that the requirement to only publish outages that have historically caused a binding constraint may omit outages that may bind in the future. Significant new generation capacity is forecast to be installed in the NEM over the coming years, industry has committed to over 1GW of new solar and wind projects with over 20GW proposed <sup>2</sup> . This installation of new capacity (and retirement of older capacity) will undoubtedly change how the power system operates and may cause outages that have not previously impacted the power system to bind in the future. TNSPs should be required to submit all outages to NOS allowing AEMO to assess the impact and invoke constraint sets accordingly.”	Noted in S4.1.1 and addressed in S4.1.2

